Panicle 35-50 cm long, tawny-tomentose, umbel numerous, 1.5-2 cm in diameter, comprising 25-35 flowers. Peduncle 2.5-3.5 cm long; bracts 0.6-0.8 cm long, extra-axillary, boat-shaped, scurfy, white to dull brownish. Flowers 0.5-0.6 cm long, numerous; white to dull brownish. Pedicels 0.4-0.7 cm long, scurfy. Calyx poorly developed or nearly absent.

Petals valvate in bud, nearly 8-lobed, ovate, fused petals forming an operculum on the disc. Stamens 8, 0.1-0.15 cm, arranged alternately, with petals, dorsifixed; filaments slightly curved at apex and broader at base. Ovary covered by the disc. Fruit not seen.

Flowering: December-January.

Distribution: Malaysia: Java. India: south Nicobar.

Exsicc.: Andaman and Nicobar Islands: Great Nicobar, 38 km East-West Road, along roadside, 12 Jan. 1990, S.K. Srivastava 14940 (PBL)

It occurs in mixed evergreen forest. Occasional.

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S.K. SRIVASTAVA

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36. OCCURRENCE OF BRANCHED BORASSUS FLABELLIFER L. AND COCOS NUCIFERA L. IN PONDICHERRY

(With a plate)

The family Arecaceae is represented by 63 indigenous palms from India (PALMS OF INDIA, Mahabale, T.S. 1982). There is no regular branching of stem in palms except in the genus Hyphaene. However, occasional cases of branching have been reported in the following species: Phoenix sylvestris, P. dactylifera, P. roebelinii, Borassus flabellifer, Arenga sp., Sabal palmetto, Copernicia cerifera, Areca catechu and Cocos nucifera (Mahabale 1982). There are only a few reports of branching of palmyra and coconut trees (Mahabale 1982). They include a palmyra palm with five branches from Coimbatore district of Tamil Nadu and a branched palmyra palm from Surat and branched coconut palms from Malabar (branched twice), Car Nicobar island and Surat (with four branches). The present communication relates to the occurrence of such branched trees in Pondicherry.

During routine plant collection trips in and around Pondicherry, a peculiar male palmyra palm with as many as 22 branches was seen on the left side of Pondicherry Marakkanam main road after

Kottakuppam. Out of the total of 22 branches, 14 were intact and scars were seen for the other eight branches which were cut or damaged.

The most interesting aspect of this tree is that one of these intact branches in turn bears four branches. All the undamaged branches are healthy and bear flowers during season. This palm is shorter (by a few feet) than the other normal palm. The thickness of the main trunk is similar to that of a normal palm, but the branches are slightly thinner (Plate 1).

Similarly, a coconut palm with two branches was located in a suburban grove at the outskirts of Pondicherry near Muthialpet. Here the branches are slightly thinner than the main trunk and bear fruits (Plate 1).

The causes of branching in the palms are not definitely known. However, it is attributed to destruction of apical bud, injury to growing point due to forest fires and insect bites (Mahabale 1982) or strokes of lightning which lead to splitting of terminal bud (THE NATURAL HISTORY OF PALMS, Corner,

E.J.H. 1966).

In the present case branching is presumed to be due to injury to apical bud caused by strong winds, as these plants grow near the sea shore on the east coast.

October 29, 1990

V. RAMASSAMY B. KANNABIRAN

37. NEW RECORDS OF THREE GRASSES AND ONE SEDGE FROM ORISSA

During the course of a study on the flora of Keonjhar district of Orissa, a number of plants previously not reported from the state were found. The present report records four such species, three of Poaceae and one of Cyperaceae: Scirpus roylei (Nees) Parker, Digitaria setigera Roth, Eragrostis nigra Nees ex Steud. and Panicum humidorum Buch.-Ham. ex Hook. f. All these are new records for Orissa. The taxa are enumerated with nomenclatural citations, brief descriptions and distributional notes.

CYPERACEAE

Scirpus roylei (Nees) Parker in Duthie, Fl. Upper Gang. Pl., 3: 361.1929; Shah in J. Bombay nat. Hist. Soc., 66: 233. 1969. Isolepis roylei Nees in Wt. Contrib., 107. 1834. Scirpus quinquefarius Ham. ex Boeck. in Linnaea, 36: 701. 1869-70; Clarke in Hook. f. Fl. Brit. India, 6: 657. 1893; Prain, Beng. Pl., 2: 1160. 1903.

Wild erect sedges. Stem slender, terete, transversely septate when dry; sheath mouth oblique, truncate. Leaves almost nil. Inflorescence of spikelet in dense head; spikelets ovoid-oblong, obtuse, slightly compressed, brown shining; glumes inflated in fruit, elliptic-lanceolate, membranous, acute to mucronate, apex shortly recurved, keeled, tapering at base; stamens 3, 5-6 mm long; anthers linear, obtuse; ovary obovoid; styles 3 fid, 2-3 mm long; stigma 3. Fruits nut, obovoid, trigonous, apiculate.

Flowering and fruiting: November-January.

Occurrence: Common.

Locality: Pithogora, 20 Dec. 1983, *Mondal*, 399, 964.

The earlier reports of the species have been from Bihar, Assam, and Madhya Pradesh. So the present report in Orissa is a new record for the state and extension of its distribution towards the southern part of India.

POACEAE.

Digitaria setigera Roth. in Roem. & Schult. Syst. Veg., 2: 474. 1871; Henr. Monogr. Digit., 684. 1950;

Bor, Webbia, 11: 344. 1955 & Grass. Burma, Ceylon, India and Pakistan, 305. 1960. *Paspalum sanguinale* Lamk. var *extensum* Hook. f. in Fl. Brit. India, 7: 15. 1897; Fischer, Fl. Madras, 3: 1764. 1934.

Annual, long erect grass. Stem slender, glabrous. Leaves linear, acute, rounded at base, flat, margin scabrous, 110-112 mm long, 4-5 mm wide; sheaths long; rachis slender, triquetrous, narrowly winged. Spikelets 1 floret oblong, acute, bearded, 3-4 mm long, 0.5-0.8 mm wide; glume 1 minute, scaly; glume 2 membranous, about half as long as lower lemma; lemma ovate oblong, acute, membranous, 3-5 nerved, palea subchartaceous.

Flowering and fruiting: October-November.

Occurrence: Common.

Locality: Silua village, 13 Aug. 1983, Mondal, 20.

Though this taxa is widespread in all the warmer states of India, it was not earlier reported from Orissa. So the present collection in Keonjhar is a new record for the state.

Eragrostis nigra Nees ex Steud., Syn. pl. Glum., 1: 267. 1854; Stapf in Hook. f., Fl. Brit. India. 7: 324. 1897; Fischer, Fl. Madras, 3: 1827. 1934; Bor, Grass. Burma, Ceylon, India and Pakistan, 511. 1960.

Perennial wild erect grass, leafy at base. Leaves flat at base, elongate above; 60-200 mm long, 1-2 mm wide; mouth of sheaths bearded; basal sheaths narrow, terete. Inflorescence panicle, very long, up to 60 cm broad, branches simple below; pedicels longer than spikelets. Spikelets olive-grey, linear to oblong, 3-9 flowered, 5-6 mm long; glume 1 and 2 membranous, subequal, acuminate, keels scabrid; lemma ovate, acute, 0.8-1 mm long; palea obtuse, denticulate, persistent; stamens 3. Caryopsis dorsally slightly grooved.

Flowering and fruiting: June-September.

Occurrence: Rare.

Locality: Silua village, 13 Aug. 1983, Mondal, 17.

The present collection establishes the continuous distribution of the taxon from north to south India, i.e. Sikkim, Assam, Meghalaya, Bihar, Orissa, Andhra Pradesh, Tamil Nadu, Kerala,